Listing of Claims

Claim 1 (currently amended): An electrolyte tin-plating solution, having a pH value of 1.5-6.0 and comprising:

(1) 5-60 g/L of tin(II) ion,

(2) a complexing agent,

(3) one or more non-ionic surfactants chosen from polyoxyethylene lauryl ether, polyoxyethylene polyoxypropylene glycol with an average of 10 units of ethylene oxide and an average of 4 units of propylene oxide and polyoxyethylene nonyl phenyl ether with an average of 9 units of ethylene oxide,

(4) ~~0.01-0.5 g/L~~ 0.02-0.2 g/L of bismuth(III) ion, and

(5) a conducting salt, an anode-dissolving agent or an antioxidant.

Claims 2-4 (canceled)

Claim 5 (previously presented): The electrolytic tin-plating solution of claim 1, wherein the non-ionic surfactants range from 0.1-20 g/L.

Claim 6 (previously presented): The electrolytic tin-plating solution of claim 5, wherein the non-ionic surfactants range from 0.5-5.0 g/L.

Claim 7 (canceled)

Claim 8 (new): The electrolytic tin-plating solution of claim 1, wherein the bismuth (III) ion is from 0.02-0.05 g/L.

Claim 9 (new): A method comprising:

a) providing an electrolyte tin-plating solution having a pH value of 1.5-6.0 and comprising: (1) 5-60 g/L of tin (II) ion, (2) a complexing agent, (3) one or more non-ionic surfactants chosen from polyoxyethylene lauryl ether, polyoxyethylene polyoxypropylene glycol with an average of 10 units of ethylene oxide and an average of 4 units of propylene oxide and polyoxyethylene nonyl phenyl ether with an average of 9 units of ethylene oxide, (4) 0.02-0.2 g/L of bismuth (III) ion, and (5) a conducting salt, an anode-dissolving agent or an antioxidant;

b) generating a current density; and

c) electrolytically depositing a tin film on an electronic part.

Claim 10 (new): The method of claim 9, further comprising a step of depositing a nickel film on the tin film.